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EXAMINER

PIAZZA CORCORAN, GLADYS JOSEFINA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 07/18/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/821,669

Applicant(s)

TUMAN ET AL.

Examiner

Gladys J Piazza Corcoran

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,13-15,21-32 and 34-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 and 34-40 is/are allowed.
- 6) ☒ Claim(s) 11,13,15,21-31 and 41-57 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 36, 52, 53, 54 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 36 recites, "deforming of the plurality of stems with a heated surface to produce a disk-shaped end on the stems." The Specification recites deforming the stems to form "mushroom-shaped" ends and "enlarged" ends, however there is no recitation or disclosure of forming a "disk-shaped end". It is suggested to amend claim 36 to recite either "mushroom-shaped" ends or "enlarged" ends.

Independent claim 50 recites a method of providing polymeric material on a fibrous major surface of a nonwoven web where a polymeric region is "entangled with the fibrous major surface." Dependent claims 52, 53, and 54 recite that the nonwoven web is a film layer, an elastic film layer, or an elastic web. There only disclosure in the Specification where the polymeric region is "entangled with the fibrous major surface" is when the nonwoven web is "orange construction paper" (Example 13 on pages 17-18 with substrate G on page 11). There is no disclosure of entangling the polymeric region

Art Unit: 1733

with the fibrous surface where the web is a film layer, an elastic film layer, or an elastic web.

3. Claims 52, 53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Independent claim 50 recites a method of providing polymeric material on a fibrous major surface of a nonwoven web where a polymeric region is "entangled with the fibrous major surface." Dependent claims 52 and 53 recite that the nonwoven web is a film layer or an elastic film layer. The specification has no disclosure to enable one of ordinary skill in the art to entangle a polymeric region with a fibrous surface of a nonwoven web where the web is a film layer or an elastic film layer (i.e. there is no enablement for a film layer or an elastic film layer with a fibrous surface that is entangled with a polymeric region).

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 22, 25-27, 48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 22 recites the limitation "the first major surface of the web" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is suggest to either

Art Unit: 1733

amend claim 21 to recite "only one first major surface of the web" and to depend claim 22 from claim 21 or to amend claim 22 to recite "a first major surface of the web".

7. Claim 25 recites the limitation "the first major side of the web" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is suggest to either amend claim 21 to recite "only one first major surface of the web", to depend claim 25 from claim 21, and amend claim 25 to recite "the first major surface of the web"; or to amend claim 25 to recite "a first major side of the web".

8. Claim 26 recites the limitation "the first major side of the web" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is suggest to either amend claim 21 to recite "only one first major surface of the web", to depend claim 26 from claim 21, and amend claim 26 to recite "the first major surface of the web"; or to amend claim 26 to recite "a first major side of the web".

9. Claim 27 recites the limitation "the first major side of the web" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is suggest to either amend claim 21 to recite "only one first major surface of the web", to depend claim 27 from claim 21, and amend claim 27 to recite "the first major surface of the web"; or to amend claim 27 to recite "a first major side of the web".

10. Claim 48 recites the limitation "the first major side of the web" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is suggested to amend to "the first major surface of the web."

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 11, 13, 22, 25, 26-31, 41, 42, 45, 48-52, 55 are rejected under 35 U.S.C. 102(b) as being anticipated by Muraski (US Patent No. 5,643,651).

As to claim 11, Muraski discloses a method of making a web material (12) having a plurality of stems (4b) extending from discrete regions (4a) of the web by providing a web (12), providing a plurality of discrete quantities of polymeric material on the web at a temperature above its softening point (plural strips of resin material are injected or extruded), wherein a plurality of discrete polymeric regions are formed on the web and forming a plurality of stems in each discrete polymeric region of the plurality of discrete polymeric regions (a plurality of stems 4b are formed in each strip of polymeric material 4a).

As to claim 42, Muraski discloses a web construction comprising a web (12) and a plurality of discrete polymeric regions on a first major surface of the web (4a), wherein each discrete polymeric region comprises a discrete quantity of polymeric material, providing a tool (2) comprising a plurality of stem forming holes in a surface of the tool (5), pressing each discrete polymeric region of the plurality of discrete polymeric regions on the first major surface of the web against the surface of the tool when the polymeric material of each discrete polymeric region is above its softening point (injecting or

Art Unit: 1733

extruding the polymeric material and passing with the web between a pressure nip), wherein a portion of the polymeric material enters the stem-forming holes (5), and separating the web construction from the surface of the tool, wherein each discrete polymeric region comprises a plurality of stems formed by the stem forming holes (see figures).

As to claim 50, Muraski discloses providing at least one discrete quantity of polymeric material (4) on a fibrous major surface of a nonwoven web (Muraski discloses using nonwoven webs with fibrous surfaces for the connector (i.e. paper)(column 2, lines 14-30)), wherein the at least one discrete quantity of polymeric material forms at least one discrete polymeric region (4a) entangled with the fibrous major surface (the polymeric region clearly is entangled with the fibrous surface as it is molded throughout the web) and forming a plurality of stems (4b) in the at least one discrete polymeric region (4a).

As to claim 13, the discrete quantities of polymeric material are provided by extruding molten polymer in a form of continuous ribbons (column 6, lines 48-65). As to claims 22 and 45, Muraski discloses the plurality of discrete polymeric regions separated by inter-regions revealing exposed portions of the first major surface of the web (see figures 4, 5). As to claims 25 and 48, Muraski discloses the plurality of discrete polymeric regions comprise a plurality of stripes extending over the first major surface of the web (see figures 4, 5). As to claims 26 and 27, Muraski discloses the polymeric regions cover within the percentages as claimed of the first major surface of the web (see figures 4, 5). As to claims 28 and 49, Muraski discloses the plurality of

Art Unit: 1733

stems comprise hooks (hook elements 4b). As to claims 29-31, it appears that Muraski discloses the stems are oriented at an angle that is not normal to the plane of the web in different directions and that tool holes correspond to the angles not normal to the localized plane of the web (see for example, figure 4, column 4, lines 25-48). As to claim 41, Muraski discloses cooling the discrete quantities of the polymeric material to a non-molten state after forming the plurality of stems (column 5, lines 1-7; column 7, lines 5-13). As to claim 51, Muraski discloses simultaneously pressing the polymeric material against the fibrous major surface of the web while forming the plurality of stems (the polymeric material and the web are pressed between a nip of a pressure roll and a molding roll). As to claim 52, Muraski discloses the web is a film layer (column 2, lines 15 and 30). As to claim 55, Muraski discloses the at least one discrete polymeric region is surrounded by the fibrous major surface of the nonwoven web (see figures).

13. Claims 11, 13, 22, 24, 26-28, 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Hasegawa et al. (JP 8-187113).

As to claim 11, Hasegawa discloses a method of making a web material having a plurality of stems (fastening sections 11) extending from discrete regions (both sides of the web 1) of the web by providing a web (thermoplastic elastomer 2), providing a plurality of discrete quantities of polymeric material on the web at a temperature above its softening point (two strips of polymeric material are coextruded with the holding web), wherein a plurality of discrete polymeric regions are formed on the web (1) and forming a plurality of stems in each discrete polymeric region of the plurality of discrete polymeric regions (fastening sections 11).

As to claim 13, the discrete quantities of polymeric material are provided by extruding molten polymer in a form of continuous ribbons. As to claim 22, Hasegawa discloses the plurality of discrete polymeric regions separated by inter-regions revealing exposed portions of the first major surface of the web (see figures). As to claim 24, Hasegawa discloses the web is an elastic web. As to claims 26 and 27, Hasegawa discloses the polymeric regions cover within the percentages as claimed of the first major surface of the web (see figures). As to claim 28, Hasegawa discloses the plurality of stems comprise hooks (hook shapes page 4). As to claim 41, Hasegawa discloses cooling the discrete quantities of the polymeric material to a non-molten state after forming the plurality of stems (top of page 6).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 1733

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 21, 23, 24, 44, 47, 46, 50-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muraski (US Patent No. 5,643,651) as applied to claims 11 and 44 above and further in view of Kennedy et al. (US Patent No. 5,260,015).

Muraski discloses forming the polymeric regions on the web by impregnating through the web and molding the regions to form substrate regions with stems. Kennedy discloses providing the polymeric region on only one surface of the web only to a degree to firmly hold the polymeric region to the web and does not encase the web to destroy the aesthetic characteristics as a functioning backing material to modify the back surface of the fastener (column 2, lines 20-53). As to claims 23 and 46, Kennedy discloses using loop material as the web material in order to form back to back fasteners with less bulk (column 2, lines 40-53). It would have been obvious to one of ordinary skill in the art at the time of the invention to form the web with discrete polymeric regions as shown by Muraski by applying the polymeric regions to only one surface of the web in order to not fully encase the web and to not destroy the aesthetic characteristics of the web and to modify the back surface of the fastener as shown by Kennedy.

As to claim 50, Kennedy discloses forming the polymeric material on the web to entangle the polymer material with the fibrous surface of webs (column 3, lines 40-65; column 5, lines 54-65). As to claims 51, 52, and 55, see the discussion above in paragraph 12. As to claims 24, 47, 53 and 54, Muraski and Kennedy both disclose the

Art Unit: 1733

web material can be a variety of known materials including woven and non-woven materials, however they do not specifically disclose using an elastic material. It is well within the purview of one of ordinary skill in the art to provide an elastic material as the web material as a well known material for webs of fastening materials in a variety of applications particularly since Muraski emphasizes a fastening material that is conformable and flexible and Kennedy discloses the web material is a loop material and these materials are well known to be elastic materials. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the web in Muraski and Kennedy of an elastic material as is well within the purview of one of ordinary skill in the art, Muraski discloses the importance of flexibility of the material and Kennedy discloses the preference of using loop material as the web material which is well known to be elastic, only the expected results would be attained.

17. Claims 15, 43, 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muraski (US Patent No. 5,643,651) (optionally in view of Kennedy et al. US Patent No. 5,260,015) as applied to claims 11, 42, 50 above and further in view of Morris (US Patent No. 5,792,411) and/or Melbye et al. (US Patent No. 5,077,870).

Muraski discloses forming hooks in the polymeric region. It is well known in the art of forming fasteners to form stems that are deformed with a heated surface in order to form enlarged ends on the stems for better fastening. For example, Morris discloses it is known in the art to form stems in molded tools as fasteners and to deform the stems to form enlarged ends on the stems (column 6, lines 33-36; column 8, lines 59-63).

Melbye is another example in the art where stems are deformed with a heated surface

Art Unit: 1733

in order to form enlarged ends on the stems for better fastening (column 5, lines 50-60). It would have been obvious to one of ordinary skill in the art at the time of the invention to form the fastening members as shown in Muraski by deform the stems with a heated surface in order to form enlarged ends on the stems as is well known in the art and exemplified by Morris and/or Melbye in order to form mushroom heads with better fastening.

18. Claims 24, 26, 27, 47, 53, 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muraski (US Patent No. 5,643,651) as applied to claim 11 above.

As to claims 24, 47, 53, 54 Muraski discloses the web material can be a variety of known materials including woven and non-woven materials, however Muraski does not specifically disclose using an elastic material. It is well within the purview of one of ordinary skill in the art to provide an elastic material as the web material as a well known material for webs of fastening materials in a variety of applications particularly since Muraski emphasizes a fastening material that is conformable and flexible. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the web in Muraski of an elastic material as is well within the purview of one of ordinary skill in the art particularly since Muraski discloses the importance of flexibility of the material, only the expected results would be attained.

As to claims 26 and 27, Muraski does not specifically disclose what the percentages of the polymeric regions that cover the surfaces of the web. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to

Art Unit: 1733

cover the web in the claimed percentages as it would have been well within the purview of one of ordinary skill in the art, only the expected results would be obtained.

19. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muraski (US Patent No. 5,643,651) as applied to claim 11 above and further in view of Morris et al. (US Patent No. 5,792,411).

It appears that Muraski discloses the stems are oriented at an angle that is not normal to the plane of the web in different directions and that tool holes correspond to the angles not normal to the localized plane of the web (see for example, figure 4, column 4, lines 25-48). Furthermore, it is well known in the art to provide stems and the tools for molding stems in angles not normal to the plane of the web and in different directions. For example, Morris discloses forming stems with a tool with angled holes that forms angled stems not normal to the plane of the web and in different directions (column 5, lines 14-39; column 6, lines 38-53; column 7, lines 10-23). It would have been obvious to one of ordinary skill in the art at the time of the invention to form the stems in Muraski at differing angles not normal to the plane of the web with a tool with angled holes as is well known in the art and exemplified by Morris in order to form stems with better directional fastening.

20. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muraski (US Patent No. 5,643,651) (optionally in view of Kennedy et al. US Patent No. 5,260,015) as applied to claim 50 above and further in view of Shimizu (US Patent No. 4,732,631).

Muraski discloses cutting the fastener material into multiple sheets of fasteners. Shimizu discloses it is known to intermittently fuse a pattern on a fastener material web in order to produce gaps to define a series of patches on the material. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the fastener material in Muraski with a fused pattern in order to form a plurality of discrete patches on the major surface of the web as shown by Shimizu to facilitate the separation of individual fasteners.

21. Claims 24, 47, 53, 54 are is rejected under 35 U.S.C. 103(a) as being unpatentable over Muraski (US Patent No. 5,643,651) view of Kennedy et al. US Patent No. 5,260,015 as applied to claims 11, 42, 50 above and further in view of Matsuda (EP 0233364) and/or King et al. (WO 96/04812).

Muraski and Kennedy both disclose the web material can be a variety of known materials including woven and non-woven materials, however they do not specifically disclose using an elastic material. It is well within the purview of one of ordinary skill in the art to provide an elastic material as the web material as a well known material for webs of fastening materials in a variety of applications. This is particularly true since Muraski emphasizes a fastening material that is conformable and flexible. Furthermore, Kennedy discloses the improvement that the web material is a loop material and these materials are well known to be elastic materials as exemplified by Matsuda and/or King. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the web in Muraski and Kennedy of an elastic material as is well within the purview of one of ordinary skill in the art, Muraski discloses the importance of flexibility

Art Unit: 1733

of the material and Kennedy discloses the preference of using loop material as the web material which is well known to be elastic as exemplified by Matsuda and/or King, only the expected results would be attained.

Allowable Subject Matter

22. Claims 32, 34-40 are allowed for the reasons as set forth in the prior Office Action, paper number 9.

23. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

24. The following is a statement of reasons for the indication of allowable subject matter: Absent Additional Art, no prior art was found to show or suggest a method of making a web material having a plurality of stems by providing a web, providing a plurality of discrete quantities of polymeric material on the web at a temperature above its softening point, wherein a plurality of polymeric regions are formed on the web and forming a plurality of stems in each discrete polymeric region where the discrete quantities of polymeric material are provided by one or more rotating cutting blades positioned intermediate a source of polymeric material and the web.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gladys J Piazza Corcoran whose telephone number is (703) 305-1271. The examiner can normally be reached on M-F 8am-5:30pm (alternate Fridays off).

Art Unit: 1733

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Gladys J Piazza Corcoran
Examiner
Art Unit 1733

GJPC
July 14, 2003